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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16517**

Generic Copy

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**Issue Date:** 24-Sep-2010

**TITLE:** HD Plus Wafer Capacity Expansion

**PROPOSED FIRST SHIP DATE:** 24-Dec-2010

**AFFECTED CHANGE CATEGORY(S):** ON Semi Wafer Fab Site

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or Larry DeLuca<[larry.deluca@onsemi.com](mailto:larry.deluca@onsemi.com)>

**SAMPLES:** Contact your local ON Semiconductor Sales Office or Brian Goodburn  
<[brian.goodburn@onsemi.com](mailto:brian.goodburn@onsemi.com)>

**ADDITIONAL RELIABILITY DATA:** Contact your local ON Semiconductor Sales Office Office or  
Donna Scheuch [d.scheuch@onsemi.com](mailto:d.scheuch@onsemi.com)

**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <[quality@onsemi.com](mailto:quality@onsemi.com)>.

**DESCRIPTION AND PURPOSE:**

ON Semiconductor is adding wafer fabrication capacity for their High Cell Density (HD Plus) MOSFET Silicon platform. This will be accomplished by qualifying ON Semiconductor's wafer facility located in Roznov, Czech Republic. During late 2010, Wafer starts of the HD Plus Silicon will begin at the Roznov wafer fabrication facility.

Reliability Qualification and full electrical characterization over temperature have been performed.



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### RELIABILITY DATA SUMMARY:

#### Reliability Test Results of NTS4001NT1G:

#	Test	Test Conditions	Read points	Sample Size	Results
1	AC-PC	Ta = 121°C/ 100% RH/ 15psig	Test @ 96hrs	1 lots x 77 units	0 / 77
2	HAST-PC	130°C/85% RH for 96 hrs biased	Test @ 96hrs	1 lots x 77 units	0 / 77
3	HTGB	TA = 150°C for 1008hrs	Test @ 1008 Hrs	1 lots x 77 units	0 / 77
4	HTRB	TA = 150°C for 1008hrs	Test @ 1008 Hrs	1 lots x 77 units	0 / 77
5	IOL-PC	Delta T = 100°C Ton/off = 2 min 15,000 cyc	Test @ 15,000 Hrs	1 lots x 77 units	0 / 77
6	TC-PC	-65°C to +150°C for 1000 cycles	Test @ 1000 cycles	1 lots x 77 units	0 / 77
7	SAT-PC	MSL1 260C	Pre and post PC	1 lot X 5 units	0/5

#### Reliability Test Results of NIS5132MN1TXG:

#	Test	Test Conditions	Read points	Sample Size	Results
1	AC-PC	Ta = 121°C/ 100% RH/ 15psig	Test @ 96hrs	3 lots x 77 units	0 / 231
2	HAST-PC	130°C/85% RH for 96 hrs biased	Test @ 96hrs	3 lots x 77 units	0 / 231
3	HTOL	TA = 125°C for 504hrs	Test @ 504 Hrs	3 lots x 77 units	0 / 231
4	HTRB	TA = 125°C for 504hrs	Test @ 504 Hrs	3 lots x 77 units	0 / 231
5	HTSL	TA = 125°C for 504hrs	Test @ 504 Hrs	3 lots x 77 units	0 / 231
6	TC-PC	-65°C to +150°C for 500 cycles	Test @ 500 cycles	3 lots x 77 units	0 / 231
7	SAT-PC	MSL1 260C	Pre and post PC	3 lot X 5 units	0/15

### ELECTRICAL CHARACTERISTIC SUMMARY:

There is no change in electrical parametric performance. Characterization data is available upon request.

### CHANGED PART IDENTIFICATION:

There will be no physical change to the Devices assembled with Die from the Roznov wafer fabrication facility. There will be Wafer Lot traceability from the manufacturing Lot to determine the Die origin. Product assembled with the Die fabricated from the Roznov wafer facility will have a Finish Good Date Code of '1050' and newer indicating a Die change-over during 3<sup>rd</sup> week of December, 2010.

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16517****List of affected General Parts:**

<b>General parts</b>
NSTS4001NT1G
NTJD4001NT1G
NTJD4001NT1
NTJD4001NT2G
NTJD4158CT1G
NTJD4158CT2G
NTJD4158CT2H
NTR4003NT1G
NTR4003NT3G
NTS4001NT1G
NTJD4001NT1G
NTJD4001NT1
NTJD4001NT2G

<b>Auto Std</b>
NVTJD4001NT1G
NVTJD4001NT2G
NVTJD4158CT1G